

Convergence Accelerators: A New Model for Research to Innovation



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What is a Convergence Accelerator?

- A new organizational structure intended to leverage external partnerships to accelerate convergent and translational activities in an area of national importance
- A home for application-driven basic research
- Advances ideas from concept to deliverables

Key Characteristics

- Fed by basic research & discovery
- Adopts convergent approach
- Cohorts, integrated teams
- Proactively and intentionally managed
- Seed investment, competition
- Intensive education and mentorship
- Attracts partnerships
- Fixed term



How do CAs differ from Foundational Research?

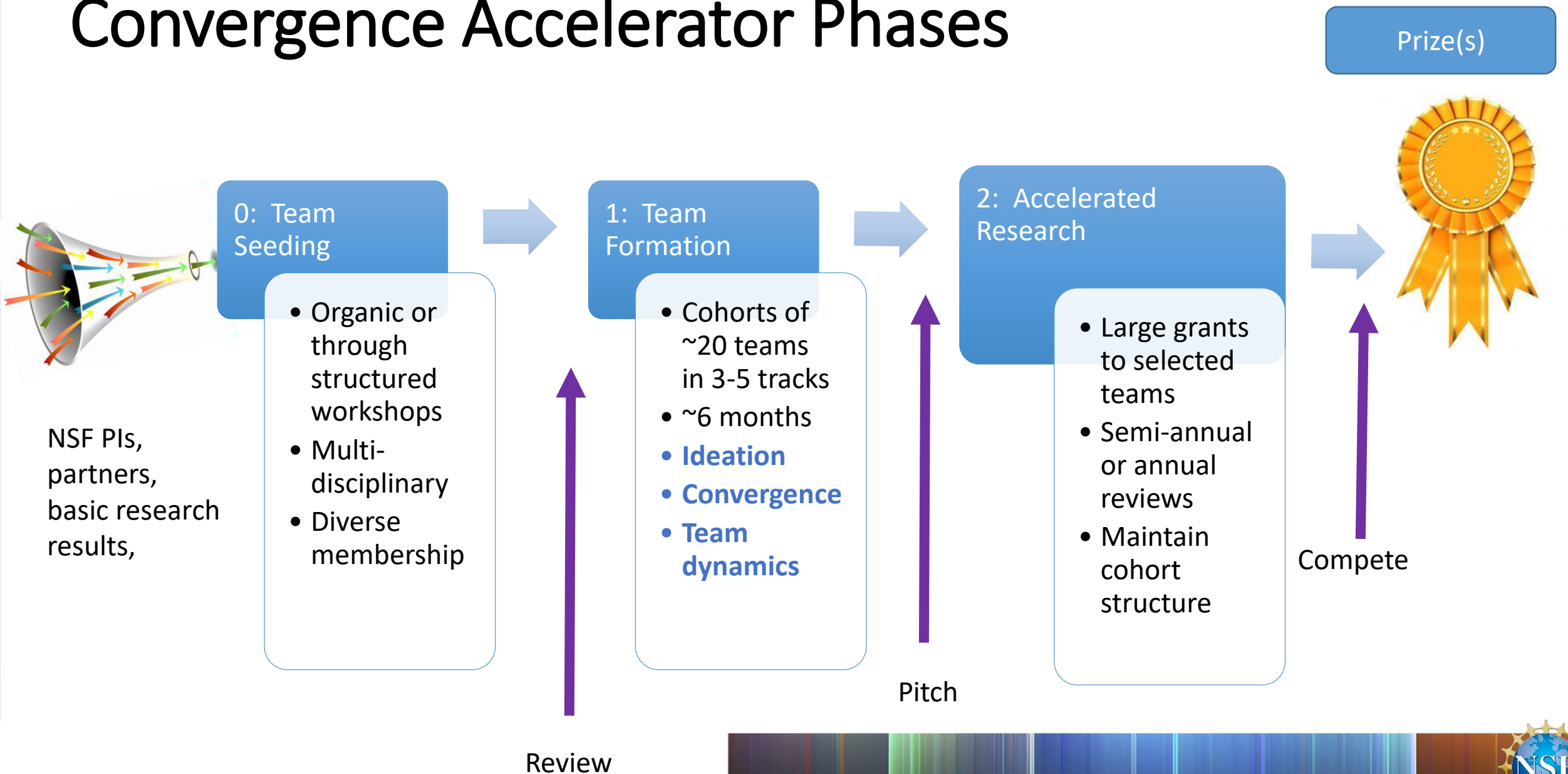
- CAs are intentional in outcomes, more goal-oriented
- CAs foster a range of approaches, solutions
- CAs feed on the tension between top-down direction setting and bottom-up creative approaches



How will the research in a CA be defined?

- NSF will start with a few “Tracks” that define focus areas within the accelerator
- Each track will have specific goals (outcomes, deliverables)
- NSF will host workshops both to form teams and to solicit additional tracks recommended by the community

Convergence Accelerator Phases



Unique NSF Expertise, combined in new ways, designed to decrease time to discovery

- Convergence Accelerators build on NSF innovations and best practices
 - Network model: I-Corps (Teams and Cohorts)
 - Collective Impact: NSF INCLUDES
 - Team Development: Ideas Labs
 - Industry-inspired Workshop on Quantum (Mar. 2018): Industry wants more similar workshops on HDR and FW-HTF topics (and URoL)
- Convergence Accelerators add new dimensions
 - Selection by pitch, instead of 15-page research proposal
 - Competition for monetary prizes



EHR participation in CA

- Team formation stage involves intensive education/training of teams
 - Training on team dynamics, ideation, communication, convergence
 - Faculty from teams give lectures on their areas of expertise; other team members listen & learn
 - Industry partners discuss needs and directions
 - Integrated “work” sessions by teams
 - Needs: Innovative curriculum, world-class instructors
- One track in the FW-HTF CA may focus on “future classroom” as a workplace with integrated technology and cognitive assistants helping the teacher and students improve overall learning outcomes

